Washington State Department of Transportation

Inspector's Daily Report

IDR Sheet 1 of 3 Sheets		
Contract	Day	Date
C7852	Friday	May 27, 2011

DIARY - Including but not limited to: a report of the day's operations, time log (if applicable), orders given and received, discussions with contractor, and any applicable statements for the monthly estimate.

Jerry Dilley (WSDOT Consultant - Superior Blasting) and I arrived at the Hyak field office at 9:00 am.

Upon our arrival, Jerry Wood indicated that KLB was working on excavating the face of the test shot section from approximately LW Station 1327+00 to 1328+00 because KLB's night shift had filled in the previously exposed face overnight. KLB indicated that they would be prepared for the field review by about 10:00 am. While we were waiting, Jerry Dilley shared some information with Jerry Wood and I about what he learned from a phone conversation the previous day with Northwest Energetic Services, the company that provides the truck for loading the ANFO/Emulsion blends. The information shared from this phone call will be detailed in Jerry Dilley's IDR for Thursday, May 26, 2011.

At 9:45 am, Jerry Wood, Jerry Dilley, and I traveled out to the site to review the excavated test blast section. We met Brandon Bair, the blaster-in-charge for Western States, and Brad Schut to review the exposed face of the test section. The test section had been excavated from approximately 1327+00 to 1328+00 and ranged from 9 to 6 feet deep. The exposed rock was a light green, moderately to highly weathered, very weak volcaniclastic rock. Of primary interest was review of the much improved drill control in the presplit face at 24 inch centers (Figure 1). However, in the body of the shot there was significant oversized rock between 2 and 6 feet in diameter (Figure 2). When we arrived, the excavator was picking up the oversized material and was dropping them on one another to break them up. Due to the weak nature of the rock in this area, the large rocks were breaking up with fairly minor effort. We also observed that 18 holes were drilled around LW Station 1328+00 and had upside-down cones in them. It is our understanding that they were not loaded for the test shot because they ran out of emulsion to mix with the ANFO.

When asked about the shot, Brandon said the holes were filled with water and he was not happy with the fragmentation, but was pleased with the condition of the preshear face. Jerry Dilley and I agreed. To mitigate the oversized material in the body of the shots, Brandon recommended that they shorten up the burden and spacing of the buffer row in template #4 to a 6 by 6 pattern rather than the current 6 by 10 pattern and reduce the production pattern to an 8 by 8 with 3.5 inch holes rather than using the 10 by 10 with 4 inch holes. I asked that Brandon submit these proposed changes to Bob Hooker, so we could evaluate any changes prior to commencing the drilling of a new pattern. Brandon said he would submit these changes on Tuesday morning.

Douglas A. Anderson (WSDOT) & Jerry Dilley (Superior Blasting)
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Brandon also asked that we shift the station limits from LW Station 1327+00 to 1329+00 for the transition from the basalt to the lapilli tuff. After some slope inspection, I agreed with Brandon and indicated that I would recommend that we adjust the station limits of blast template #1, #3, and #4 to reflect this difference. I spoke with Bob Hooker via phone about amending the templates for the new station limits following the field meeting.

Brandon also mentioned that he would like to tighten up the production pattern in blast template #1 from 12 by 12 to 11 by 11. I told him that we would be fine if he wanted to submit a range of burden and spacings with the drill hole diameters for the templates. I told him that if they were going to make changes to a template that we would like the opportunity to evaluate and approve the changes prior to them beginning any drilling of the new patterns on the slope. I emphasized that this was a major problem last year and we don't want this occurring this season.

Jerry Dilley requested three things from Brandon: 1.) please submit hand-written blast reports with drawings of any field changes or problem areas in the shot pattern because the current post blast report does not contain that type of information, 2.) get a density test kit for the ANFO/Emulsion loading so he knows exactly what blend is going down the holes because it is our understanding that they were not measuring the last shots explosive mixture very accurately and it could have been the reason for such an uneven shot resulting in high bottom (17 feet) areas (it is industry standard to measure twice per day with a density kit when loading blended explosives), and 3.) the blaster should consider using three sticks of dynamite in the bottom 16 inches of the preshear holes rather than the 2 sticks they are currently using to mitigate hard toes at the base of the preshear line.

Jerry Dilley, Jerry Wood, Brandon Bair, and I discussed the need for another test blast since they would be altering the blast plan for template #4 and that the first section was not in the strong lapilli tuff. Brandon agreed and indicated that they planned on blasting the new template #4 pattern around LW Station 1329+00 to 1330+00 next Thursday and James, the excavator operator from KLB, mentioned that they would have the face exposed for review by Jerry Wood, Jerry Dilley, and I ready by Wednesday, June 8th.

Before leaving the site, I reminded Brandon that if site conditions warrant a different blast plan from the templates, we expect that a blast-specific plan for those field conditions will be submitted. I explained that the intent of the blast templates was to allow the contractor to limit their paperwork requirements for about 75 to 80 percent of the proposed shots on the job, but that site conditions should dictate the need for the other 20 to 25%

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of the shots that require blast-specific plans. Brandon was surprised when he heard that he could deviate from the blast templates, but acknowledged that he will submit specific blast plans if he feels there is a need to do so.

I inquired with Brandon whether he was in regular contact with Charley Murphy, the Contractor's blast consultant. He indicated that he had made a call to Charley, but has not received a call back. I asked if Charley had reviewed any of the blast plans this season and he indicated that he wasn't sure, but he wasn't sure if Danny Sanders had spoken with him. After learning this information, I voiced my concern to Brandon and Jerry Wood that it is important that the Contractor have a blasting consultant that is readily available to answer questions and review blast plans before they are submitted to WSDOT for review. I asked that Brandon follow up with Jerry Wood about this contract requirement.

Jerry Dilley, Jerry Wood, and I left for the Hyak field office at 11:45 am and spent about 45 minutes discussing the critical blasting issues that were discussed on-the-grade. Those discussions are already highlighted in this IDR.

As a follow up, Jerry Wood asked how stern they should be when measuring the blast template holes on-the-grade. I told him that it is important that the Contractor follow the patterns identified in the templates, but if field conditions warrant in a small section of the pattern to change burden and spacing a little bit, we should allow them this flexibility. Otherwise, the template patterns should be followed until they submit a new blast template. I re-emphasized that no drilling of a new pattern should be started before the Region provides approval of the blast plan/template changes.

Jerry Dilley and I left the site at 12:30 pm.

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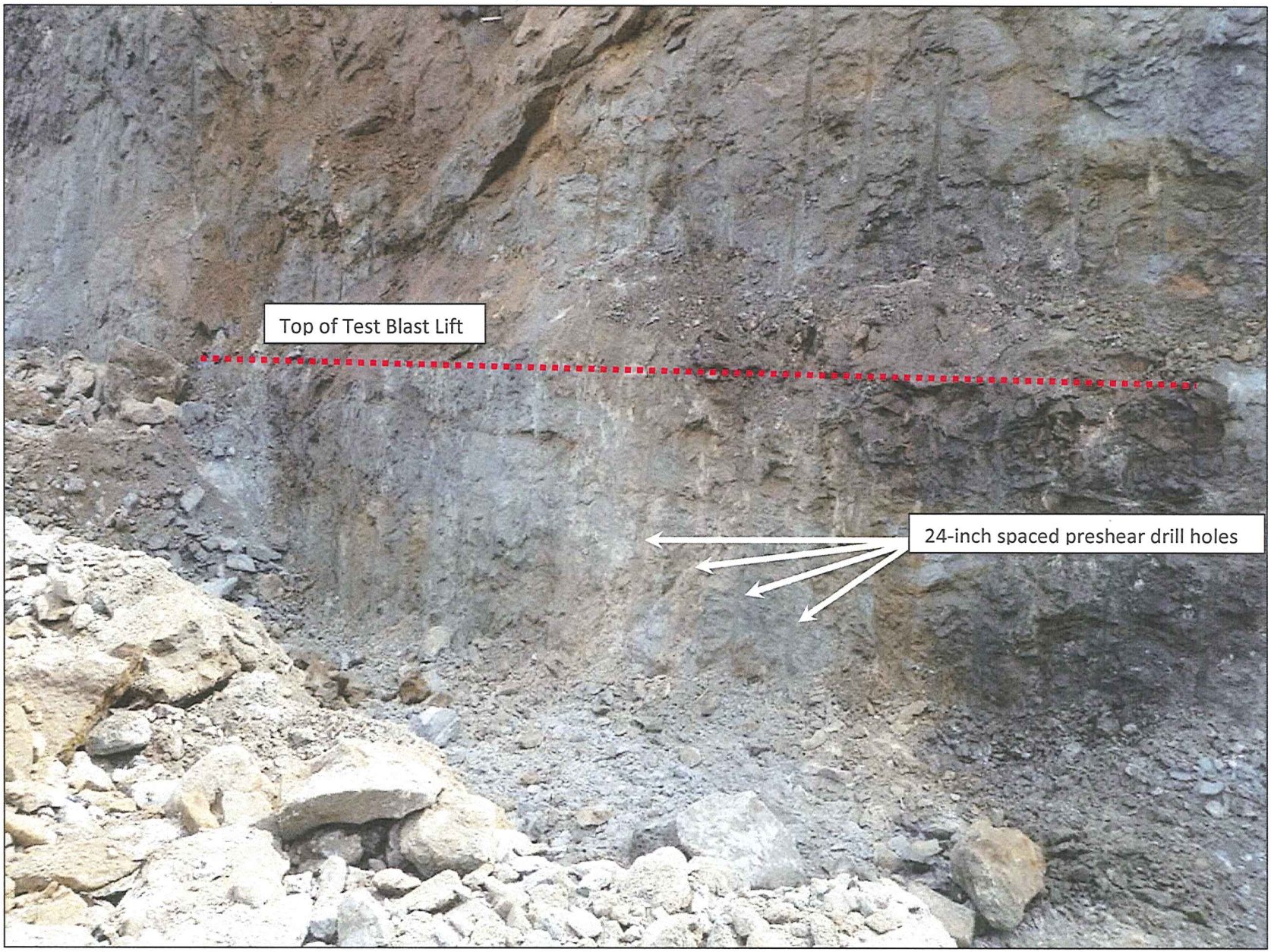

Figure 1. The freshly exposed face of the template #4 test blast section between approximately LW Station 1327+00 and 1327+75. The preshear drill holes are evenly spaced vertically and horizontally along the finished face. This is a vast improvement from the drilling accuracy last season.

Figure 2. A photograph looking north at approximately LW Station 1327+75. Notice the oversized rock in the muck pile of the blast. If it weren't for the weak nature of the rock being readily broken down by the excavating equipment, I believe that the oversized materials would be much larger.